

SEQUENCE LISTING

SEQ ID NO:1

Mouse Melanopsin cDNA

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1  cactcattcc tttgcgcttc attggacatt aagcagtcag cagcccaaag agcagctcca
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   181 gagcatggac tctccttcag gaccaagagt cttgtcaagc ttaactcagg atcccagctt
   241 cacaaccagt cctgccctgc aaggcatttg gaacggcact cagaacgtct ccgtaagagc
  10  301 ccagcttctc tctgttagcc ccacgacatc tgcacatcag gctgctgcct ggggtccctt
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  15  661 cctgacagcc atagccatgg accgctatct ggtgatcaca cgtccactgg ccaccatcgg
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  1981 acagagtgtg atggtgttca cctctctgcg cgggttttga tgctgggcaa acacggggaa
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SEQ ID NO:2

Mouse Melanopsin polypeptide

MDSPSGPRVLSSLTQDPSFTTSPALQGIWNGTQNVSVRAQLLSV

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45  SPTTSAHQAAAWPFPPTVDVDPDAHYYTLGTVILLVGLTGMLGNLTVIYTFCRNRGLRT
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   TAIAMDRYLVIITRPLATIGRGSKRRTALVLLGVWLYALAWSLPPFFGWSAYVPEGLLT
   SCSWDYMTFTFPQVRAYTMLLFCFVFFLPLLIIFCYIFIFRAIRETGRACEGCGESPL
  50  RQRRQWQRLQSEWKMAKVALIVILLFVLSWAPYSTVALVAFAGYSHILTPYMSSVPAV
   IAKASAIHNPPIIYAITHPKYRVAIAQHLPLCLGVLLGVSGQRSHPSLSYRSTHRSTLSS
   QSSDLISWISGRKRQESLGESEVGWTDTTETAAWGAAQASGQSFCSQNLEDGELKAS
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55 SEQ ID NO:3

Human Melanopsin cDNA

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1  cggacacagg agaaagcagc gggtaggcta agcaggggtg ctgaggatgg aggaaagtgt
61  ggaggctgag cacagctgaa gtctctgagc ccctgtgccc ttgacttctc tgtgggctcg

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5 121 agcaaggacc atcccaactc aggatgaacc ctcttcggg gccaaagagtc ccgcccagcc
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 241 agagcagcat ctccagcctg ggccggcttc catccatcag tcccacagca cctgggactt
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 15 961 gggcctgcaa gggcaatggc gagtccctgt gcgagcggca gcggctgcag agcgagtga
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 35 2161 caccaagcac atgcgtgcac actctgcgtc tgtgattcat tcatgtagt ggtctaagct
 2221 cctcccaggg ctgtgtggat ctgacagggt ataggaaaat aaaaagcgga gaaggtgtct
 2281 tcag

40 SEQ ID NO:4

Human Melanopsin polypeptide

MNPPSGPRVPPSPTQEPSCMATPAPPSWWDSSQSSISSLGRPLPS

ISPTAPGTWAAAWVPLPTVDVPDHAHYTLGTVILLVGLTGMLGNLTVIYTFCSRSLR

45 TPANMFIINLAVSDFLMSFTQAPVFFTSSLYKQWLFGETGCEFYAFCGALFGISSMIT

LTAIALDRYLVITRPLATFGVASKRRAAFVLLGVWLYALAWSLPPFFGWSAYVPEGLL

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50 KAPPRPQGHEAETPGKTKGLIPSQDPRM